

# THE ARIZONA CITIZEN.

Vol. VI.

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No. 51.

## THE ARIZONA CITIZEN

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Business advertisements at Reduced Rates. Office Northwest corner Main and Congress streets.

AUTHORIZED AGENTS FOR THE CITIZEN:  
W. N. Kelly, newsdealer at Prescott, has THE CITIZEN for sale, and has authority to receive and receipt for money due us.  
L. P. Fisher, 20 and 21 New Merchants' Exchange, is our authorized Agent in San Francisco.  
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WASSON & HARRIS, Proprietors.

J. C. HANDY, M. D.  
TUCSON, ARIZONA.  
CORNER OF CHURCH AND CONVENT.

H. N. ALEXANDER,  
YUMA, ARIZONA.  
ATTORNEY AT LAW.  
Will practice in all Courts in this Territory

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ATTORNEY AND COUNSELOR AT LAW,  
NOTARY PUBLIC,  
Mineral Park, Mohave County, Arizona.

JAMES ABEGG,  
MAIN STREET, YUMA, ARIZONA.  
News Depot, Book and Cigar Store, Confectionery and Fancy Goods.

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CIVIL ENGINEER AND SURVEYOR.  
Deputy Surveyor of Mineral Lands,  
Tucson, Arizona. 50-1

WILLIAM J. OSBORN,  
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Special assistance given in obtaining patents for Mining and Preemption claims, office south side Congress street, Tucson Arizona.

J. M. BERGER,  
WATCHMAKER AND JEWELER,  
Tucson, Arizona.  
I have every facility to do all kinds of work in my line, and at reasonable prices. My work is warranted for one year.  
Shop on Congress street, opposite L. M. Sells & Co's store.

FARLEY & POMROY,  
ATTORNEYS AND COUNSELORS AT LAW,  
Tucson, Arizona.  
Notaries Public. Office United States District Attorney. Office on Congress street.

R. A. WILBUR, M. D.  
CORNER PLEASANT AND CONVENT STS.  
TUCSON, ARIZONA.  
Will resume the practice of his profession Thursday, July 1. Will give attention by preference to diseases of women and children.  
Office hours from 9 a. m. to 3 p. m. and evening.

RAFAEL SUASTEGUE,  
JEWELER, WATCHMAKER AND ENGRAVER,  
Informs his patrons of this city and those of other parts of the Territory, that he is ready to execute all kinds of plain and fancy workmanship in silver and enamel.  
Any work entrusted to him will be executed faithfully, promptly and at cheaper rates than before.

S. W. Carpenter,  
RECORDER OF PIMA COUNTY.  
Office in the Court-house, Tucson.

NOTARY PUBLIC AND CONVEYANCER,  
Notice of location of Ranches, Water Rights, Mines and Mill-sites, Deeds, Mortgages, Bills of Sale and all other legal documents executed properly and promptly at moderate charges.  
Records searched FREE of charge.

Pioneer News Depot  
—AND—  
CIGAR STORE.

THE LATEST NEWSPAPERS, PERIODICALS, Magazines and Novels.  
Also, a fine assortment of CIGARS, TOBACCO, PIPES, ETC., constantly on hand.

S. MANSFIELD,  
Lesinsky's block, Congress St., Tucson, Arizona.

The Elliot House.  
Florence, Pinal County, Arizona.  
W. V. ELLIOT, Proprietor.

THE ABOVE NAMED HOUSE IS amply prepared to accommodate the traveling and home public, and attention is called to the fact that the proprietor intends to merit patronage by satisfying his customers with the best of meals.  
This bar is always supplied with CHOICE LIQUORS AND CIGARS.  
March 4. 22-1

New and Best Bakery  
—by—  
GEORGE HUCKE.  
Tucson, Mesilla Street.

WE ARE CONSTANTLY PREPARED to supply hotels, restaurants and families with the  
Choicest Bread, Cakes, Pies and Confectionery.  
—and will soon—  
MANUFACTURE CANDIES of a Superior Quality, for sale generally. Orders for all sorts of pastry for wedding and other parties solicited and promptly and satisfactorily filled.

Remember our shop is on Mesilla street near Main and Meyers.  
Oct. 9. 1-1

## Centennial Poetry.

(On the Centennial Anniversary of American Independence.)  
"We have to confess that England is old and the United States young."—Times.  
Punch sees no harm in that confession, Age is a thing comparative;  
In History's immense procession Some realms than others longer live.  
What diagnosis marks the time When any State is in its prime?

America is young, no doubt, And keeps her hundredth birthday merrily;  
Her cannon roar; her speakers shout; Her toasts and sentiments ring cheerily;  
And how tall talk in fyttes has flowed In Bayard Taylor's long-drawn Ode!

Hail we the democratic Maid Self-crowned with Freedom's deathless laurel;  
Nor her large Liberty upbraid Because its winning coat a quarrel.  
Prosperity and social health To the colossal Commonwealth!

Yet is Old England quite so old As the Chronologer maintains,  
Whose oldest, noblest blood is rolled Through the wide Union's youthful veins!

In all things good beneath the sun John Bull and Jonathan are one.

Long centuries of stately life Are England's birthday gift to her; Columbia's youth, with vigor rife, Is felt in England's heart astrife.  
In young America's Centennial Old England feels herself perennial.  
—London Punch.

## Globe Mining District, Arizona.

Last January, we started for Globe district with a view to note and write up some of its principal features, but owing to illness, did not reach there. Since then, several parties have been requested to give THE CITIZEN a somewhat minute and accurate description of it, but none have complied. Nearly all our Arizona readers are quite directly interested in the district, and therefore we give the following lengthy communication found in the San Francisco Mining and Scientific Press of date September 2:

EDITORS PRESS:—Globe mining district was organized about twelve months ago. At that time it was confined to Pinal county, but since then a large tract of land has been cut off from the San Carlos Indian reservation and added to the district, said addition being in Maricopa county, and includes the great Apache mountains, in the northeast part of the district, formerly known as the sacred home of the ancient red men, who have been heretofore the great bugbear that has retarded the development of this section of country, which has produced silver ores from the surface, within the last six months, second to no others previously discovered in any part of the Western States and Territories, not only on account of their richness in intrinsic value, but for their mineralogical combinations and crystallization. In this article I refer principally to the

NORTHEASTERN PORTION OF THE DISTRICT,  
Which is in Maricopa county. The great Apache mountains run in a northerly and southerly course, the eastern slope of which forms the gulches and creeks that constitute the San Carlos river, that empties into the Gila river at the San Carlos Indian agency, distance about 35 miles in a southerly course. From the western slope the waters from the canyons run into Pinal creek, which latter forms a junction with Salt river about 15 miles from the apex of the great Apache mountains. The greater portion of the district surface is principally small, undulating hills, covered with luxuriant grasses the whole year. The mescal grows here very abundantly; I believe it to be

A SPECIES OF THE MAGUEY,  
Containing a great amount of sugar. It formerly served the Apache Indians with the nourishment wherewith to sustain their diabolical vitality while raiding on the pale faces. The plants are cut down and the thick leaves trimmed close to the butt, which varies from a few inches to a little more than a foot in diameter; they are then put into a mescal pit built of stones and earth (principally in the gulches and canyons), where fire is applied and rocks heated. The plants are placed in the bottom and covered over with heated rocks and earth, where it is allowed to remain 48 hours to roast, and is then ready to be used as food. Although they now draw their rations of provisions at the San Carlos agency, they are so habituated to use it that they procure passes from the Indian agent to allow them the privilege to burn mescal. Many Apaches have been engaged the last two months in this branch of their industry in a very peaceable manner among the miners, invariably showing their pass to be absent a certain number of days off the reservation.

WATER  
Is somewhat scarce, but there is sufficient for consumption and to treat the ores of the district by steam power. Wood is also scarce in the vicinity, but plenty in the Pinal mountains, about ten miles southwesterly. Salt is abundant on Salt river, within 15 miles, and at some parts of the district only 10 miles, which will facilitate considerably the reduction of a certain class of silver ores found in this portion of the district, which re-

quire to be treated by the chloridizing process in order to save a large percentage of the silver the ore contains, i. e., silver glance, brittle sulphuret of silver, black oxide and tenanite, all of which are here associated with blue and grey malachite.

## THE FIRST MINE DISCOVERED

In this part of the district is called the Champion, located late in 1875. The Champion company had 250 pounds of ore smelted at a rude Mexican furnace, which yielded 35 pounds pure silver, and eight pounds of silver were afterwards taken from the slag.

It is situated on the southwestern slope of Chromo butte, (the reservation line now is marked out over the butte, leaving the Champion about one-quarter of a mile outside of the boundary,) and about 200 yards from the gap or gorge in said Chromo butte, which is somewhat isolated from the great Apache mountains. This mine is on the eastern border of the mineral belt which crosses the district in a northeasterly and southwesterly course. This course refers to a number of mammoth fissure lodges, ledges or veins that are traceable for several miles and pre-empted under different names, varying from thirty to fifty (and I might say more) feet wide which I will classify separately, of which the Champion is the first.

It is in the syenitic granawake group inferior, stratified series, transition rocks of the upper silurian or lower devonian of the geological systems. It is quite immaterial to which it belongs, as both of them abound in the precious metals. This group of rocks at some remote time has been considerably upheaved, which accounts for the limestone deposits which cross the country in a northeasterly and southwesterly direction for several miles and about six miles wide. In their lithological structure they differ a great deal, but in their mineral constituents very little. This refers to the rich mineral-bearing belt of rocks of the granawake group, in which the large, true fissure veins are found, sending out a variety of branches and spurs producing many varieties of silver ore from the surface, averaging from 20 to 65 per cent. silver, in quantities ranging from a few hundred to several tons of such ore.

THE GENERAL COMPOSITION  
Of the granawake indicates its having been formed of a fine detritus (matter washed from and produced by the disintegration of other rocks), and its having been deposited slowly; but it sometimes has fragments of rock, of various sizes under that of a man's head, imbedded in it. This is notably the case six miles southwest of the Champion, near Raaboz camp, where it occasionally passes into conglomerates, crops out at the surface after being capped over with quartzite (about four miles) in segregated masses; compact, and in some few instances inclined to be foliiform; very hard, brittle and crystalline, of various colors, but generally a reddish brown, especially where the "iron hat" crops out at the surface in the proximity of the fissure vein that underlies it. It assumes a stratiform position in its normal condition. Up to the present time no rich deposits have been found on the surface (in this district) in the quartzite formation.

The Champion vein is about three feet wide, well defined, between two walls of granawake, (syenites) with a dip about 10 to 15 degrees from the perpendicular, northwesterly. The gangue or matrix is principally composed of sulphate of bryta, silica, mixed with carbonate of lime and argillaceous earths. Near the surface the present workings are about 22 feet deep, open cut. The matrix is in a high state of crystallization, producing large and beautiful specimens of crystallized chloride of silver, associated with argillaceous chloride of silver, brittle sulphuret of silver, silver glance (argenteite), and the result of decomposition of the two latter varieties, produced by the surface influence, black sulphide of silver, after the upheaval and infiltrations of salt water into the vein, which undoubtedly produced the chloride by the natural process termed metamorphism. I will also state here that

ANOTHER FISSURE VEIN.  
Also on the western slope of the Apaches, known as the "Lazy Bob"; the Meteor is the first southwesterly extension of the former. The vein at this point is well defined between two walls of syenitic granawake, stratified with a dip of 10 degrees to the northwest. The vein is here, where developed, three feet wide; its course is northeasterly and southwesterly, the matrix is principally quartz and brown spar, carrying ore from the surface composed of black sulphide of silver, malachite, stephanite and argenteite; first-class ore worth over \$2000 per ton; second-class, from 600 to 1000 ounces per ton; pay streak about six inches. Specimens from this part are in package No. 3. About two tons of Lazy Bob ore have been sacked ready to be disposed of (at the owner's cabin) for more than three months; but there are no buyers in this district even at fifty per cent. discount. The Lazy Bob has a shaft developed fifty feet deep, showing a continuous well defined vein. It has been shut down over a month, with good pay ore in sight, for reasons which I will annex hereinafter. The Meteor has a shaft 85 feet deep, with a well defined vein. It was discovered early in February, 1876; it is now shut down. There is not a single break in the vein as yet as far as sunk on. Great credit is due the owners of these mines for developing them under such terrible disadvantages, of which I will illustrate hereafter. These locations are about one mile and a half northwesterly from the Champion.

A MILE NORTHWESTERLY FROM THE SHERMAN IS  
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FREE GOLD  
Is found in this fissure vein, chiefly confined to those rocks that are quartzose in their character, interspersed with mineralized brown gneiss, especially where white quartz, decomposed feldspar and chromate of iron predominate. This portion of the stratum is to a certain degree more or less auriferous. I believe it to have been deposited by infiltration, the gold being in solution in the salt water, while the stratum was inundated and subsequently precipitated in the gangue or matrix of the vein by the excess of iron in the same, assisted in their deposition, (the chloride and free gold), by the decomposition of one chemical substance acting on another with which it has an affinity, conjointly producing a kind of electro-metallurgy, by the polar electric currents. All nature is in process of growth and decay. "We either gain or lose, or sink or rise, nor rests our struggling nature till she dies!" Which is only a state of transformation. The analogies holds good in the three different kingdoms; as electric currents maintain the vitality of the animal kingdom produced by the decomposition of certain chemical compounds intro-

duced into the system, so the vegetable kingdom also is entirely dependent for its vitality on the absorption of certain alkaline salts extracted from the earth, and moisture, which form the electric currents that maintain its vitality. The same law governs the formation of different species of mineral combinations; it is the result of affinity or molecular attraction, for let it be understood that whether in the animal, vegetable or mineral kingdoms, there always exist kindred associations—affinities—"like loves like." Among minerals, atomic agglutination and crystallization are constantly going on, and whether the substances undergoing these changes (pseudomorphism) are iron, silver, gold, etc., when in solution the final results—metallic or earthy solids—are the same.

Following the course of the Champion is a northeasterly direction four miles, we have the same formation on the east slope of the Apaches, where the fissures again crop out at the surface, several feet wide, the Stonewall, Hannibal and

## SEVERAL OTHER LOCATIONS

Producing rich ore at the surface, while in their immediate vicinity many cross-courses (northwest and southeast) intersected by counters, east-southeast and west northwest invariably being their course. They were first discovered late in February, 1876, and many tons of exceedingly rich ore have been taken from these counters and cross-courses, held under many locations, as the Almuden, Little Mary Ann, St. Louis, Little Mac and many others. Specimens from these lodges are mostly kerargyrites and argenteite, marked No. 1, in the specimens I send you with this letter.

One fissure vein from this extreme northern part of the district is located for five miles continuously in a southwesterly course. It crops out at the surface every few hundred feet, about half a mile southwest of the apex of the Apaches. It is known as the Sherman lode here. It is somewhat broken up, and many cross-courses and counters intersect, carrying silver ore, as per sample No. 2, containing chlorides, iodide, bromide, brittle sulphuret of silver (stephanite), argenteite and a little malachite, worth over \$10000 per ton. I've seen quantities of this grade of ore taken from the Sherman, Chromo, Treasure Vault and many others in the vicinity, averaging over four tons of first-class from surface working not more than twelve feet deep; still the lodes when in place are still going down in rich ore, averaging from six inches to two feet between walls, with a dip about fifteen from the perpendicular.

These mines were located early in February, 1876, but little development has been done on most of them, principally on account of the many disadvantages the miners of this district are laboring under, of which I will illustrate hereafter. These locations are about one mile and a half northwesterly from the Champion.

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## A SPUR OF MOUNTAINS

Somewhat isolated from the Apaches runs westerly about three miles. Its base commences on the southeasterly portion of the Richmond basin. From the lithological combination of the rocks that constitute this spur, I am inclined to classify said spurs as belonging to the azoic age on account of primitive granite accompanied with hornblende, being the rocks exposed for several hundred feet in height along the course of said spur, through which passes several veins, of which the Helg is the most conspicuous. It was discovered February 10, 1876. Its location is about six hundred feet above the Richmond basin, northeast and

southwesterly course, almost a perpendicular vein about eighteen inches to two feet wide between walls of granite of the gray variety. The shaft is now twenty-five feet deep, with from three to six inches as per sample No. 4, of ore averaging over two thousand dollars per ton, composed of (on the surface) silica, sulphate of baryta, black sulphide of silver, chloride, brittle sulphuret of silver, argenteite and malachite, the three last mentioned predominating at the bottom of the shaft.

At the base of this range many varieties of metamorphic rocks crop out at the surface: gneiss, mica-schist, syenite are the most predominating, while the general formation at the Richmond basin is quartzite. Porphyry, feldspar and chlorite in some places figure conspicuously, through which the Richmond vein passes in an easterly and westerly course, through rocks that were conformable to the silurian, thus accounting for the chlorides, bromides and iodides of silver produced by infiltration and decomposition (pseudomorphism) of the primitive minerals in these veins, such as brittle sulphuret of silver and argenteite. At the same time the footwalls within a mile are composed of limestone, conglomerates and crystallized sandstone, with occasionally some beds of shales of the primordial period. The conglomerates contain pebbles and boulders of quartz and Jasper very finely cemented, of various sizes (some over nine inches in diameter), which undoubtedly are derived in part from the subjacent azoic, and thus show their later origin.

## THE RICHMOND VEIN

Is traceable for many miles. The first extension east has a shaft which is 25 feet deep, at which point the vein is over six feet wide, showing good mineral ore from the grass roots down, and improving as depth is obtained. Over 10 to 15 tons of ore are piled up close to the shaft (which was taken out of said shaft) that will average from 300 to 500 oz. of silver per ton, while the first-class, if sorted, would be very rich, as has been proved by few sacks taken from the same, that run over 2,000 oz. Specimens from the Richmond, at the surface croppings and bottom of shaft, are in package No. 5. The ores from this portion of the district can be successfully treated by the chloridizing process, as the amount of base metal is very small.

## ON THE RICHMOND FLAT, BELOW THE VEIN A FEW HUNDRED FEET OFF, IS WHAT IS KNOWN AS THE HOO-DOO

## PLACER SILVER MINING CLAIM.

From which a few tons nuggets have been taken out by stripping the surface ground to the bedrock where the ore is principally found, and in many instances where larger deposits of float ore have remained (in statu quo) while the stratum was inundated in salt water, the sulphuret (stephanite) and silver glance has partially decomposed and produced the chloride of silver, not only in the float ore, but has, in many instances, penetrated the seams of the bedrock on which the nuggets have reposed undoubtedly for millions of years. I affirm that if the crystals of the float ore were placed under the microscope and examined by a crystallographer, they would be identified with those of the ore the Helen and Richmond veins contain.

Many scientific (so-called) miners, prospectors and millmen from California, Nevada and other parts, have pronounced the veins of this district surface coyote holes, and have affirmed that the formation is not here to produce true fissure veins. At the same time there was not one among them (that have made the above referred-to assertions) that knew crystallized chloride silver, while in many instances they picked up specimens of bromide and iodide of silver, containing over 39 per cent. of silver, and threw them away as worthless. In their ignorance they classified it as oxide of iron and chromate. I am but a dispossessed pioneer, yet I challenge the accuracy of any man's statement who says that Globe mining district does not contain true fissure veins. 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